



**REQUEST FOR PROPOSAL PS-#1175
PROPERTY TAX SYSTEM MODERNIZATION**

QUESTIONS AND ANSWERS

Latest Update on: May 15, 2012

1. I understood that the target environment was open. I realize in the RFP that it is very specific about .NET. Is it true that only providers of re-hosting solutions to .NET have a realistic chance?

Answer: The RFP specifies the preferred framework is .NET but the requirement is for a modern framework, so yes other solutions are possible. The County now develops other applications in .NET on a Windows/Intel platform, which is why we suggest it. We're open to other environments as long as they'll run on Windows and the backend database is SQL.

Added May 1 , 2012:

2. How is the data from the scanners currently sent to fields on the aforementioned screen? Is there a proprietary utility supplied with the Metrologic devices?

Answer: In general, data scanned by scanners is the same as if it were keyed in. The application doesn't know the difference. The scanners read the barcode and transmit information as if the user typed it in. You can read the barcode and see it in a text document. They are simple USB barcode readers. For more information, please contact Metrologic.

3. There are two operating systems listed in Appendix E, but only one VSE machine referenced. What is the reason for supporting two versions of the operating system?

Answer: We run z/VSE under z/VM. The applications all run on z/VSE. z/VM was included to fully disclose our environment.

4. How many MIPS are used by the Applications in scope? Or if not known how many are available in the environment and what percentage do you estimate these applications use?

Answer: The z/890 is rated at 88 MIPS according to sources found by Google. The percentage of uses varies with the time of day. A normal weekday is typically online uses less than 10% (0630 - 1800), batch uses 45-60% (18:00 - 24:00) and 65-70% (00:30 - 04:30).

5. What percentage of the Interfaces in Appendix F will need coordination with parties not under the project governance?

Answer: This entire project is under County executive governance. All but roughly 5% of the interfaces listed in Appendix F were written and are maintained by Information Technology. Information Technology will be directly involved throughout the project. The County project manager will coordinate all acceptance testing by the departments involved.

6. The RFP seemed very preferential to Windows and .NET, but during the call that was somewhat de-emphasized. How important is a Windows result over a Linux or UNIX solution?

Answer: See question/answer #1 now posted on the County website.

7. Can you post a sample of the COBOL CALL statements used to process DB2, VSAM and Flat Files respectively through the I-O Modules scheme?

Answer: Yes, we'll provide a sample as requested later this week of April 30.

8. What is the count of BMS maps?

Answer:

Number: 583

Lines of Code: 134,381

In addition, there is a symbolic I/O map copybook for each BMS map. These are COBOL layout, generated by SDF/CICS for CICS/VSE R1.4to Panvalet and included in COBOL CICS programs.

9. How many VSAM files are in scope? What percent are variable length (the call suggested all of them)?

Answer: All VSAM files metrics in Appendix D – Inventory and Metrics are in scope. Total quantity is 418. Variable length files are those compressed by our in-house compression algorithm. There are 36 files. The percentage of variable length VSAM files is about 8.6% (36/418).

10. What are the criteria for determining if a sequential file is permanent or temporary?

Answer: All sequential files are permanent. Work files are partition files that are temporary for the life of the job.

11. Do we know how many permanent files are in scope?

Answer: All permanent sequential files metrics in Appendix D – Inventory and Metrics are in scope.

12. How many DB2 tables are in scope?

Answer: All DB/2 table metrics in Appendix D – Inventory and Metrics are in scope.

13. Does the county have the ability to generate uncompressed data i.e. reverse the algorithm enforced by the I-O modules.

Answer: The preferred method is stated by the County is defined in requirement 5.2 in Appendix C - Technical Requirements Response Form. If the vendor cannot support this requirement, the County can consider developing a repeatable method to uncompress the data.

14. Does data compression extend to DB2 tables or just VSAM and flat files?

Answer: Only VSAM files have data compression.

Added 5/2/12:

15. It seems that the County is taking ownership of servers and Disaster Recovery of those servers. Correct?

Answer: Correct.

16. Since some software pricing is based on Cores, can you say the size of the environments needed (Prod,Test,Stage)in terms of cores?

Answer: Requirement #2.6 in Appendix C in the RFP PS-#1175 states the following:

“Provide sizing information for the VMware vSphere/ESXI 5.x or newer hardware requirements for the host(s) that will support the solutions virtual machines (guests). Specify the number of virtual CPU's, virtual memory, and disk storage requirements that each virtual machine will require for the solution.”

If the software is based on physical "Cores" we need to know how many Virtual CPU's (vCPU's) that the solution requires. We do not present all

"Cores" from a host (machine that holds multiple virtual machines) to a single Virtual Machine (guest), we only provide the number of Virtual CPU's required for the software/solution to perform properly. We ask that the vendor specify this number.

17. Technical requirement 8.1: Provide solution for user login validation limiting user to parts of systems they are allowed to access. Replaces menu and security related aspects of InterSession use. Can InterSession use Active Directory as it's security repository? Please elaborate on how InterSession uses logon information to control the user's menu choices once authenticated.

Answer: InterSession is a VTAM application that runs on the mainframe. The vendor can replace it with something that uses Active Directory.

Added on 5/9/12:

InterSession is essentially a menu program. We define "systems" and then give access to users. The "systems" as we define them are CICS transactions. The production transaction is just 4 characters, the test transaction has a T appended in the InterSession menu. They are the same except for the CICS partition the transaction goes to.

InterSession also contains the CICS security codes for v2.3 defined for each individual. This must match the RSL in the CICS transaction definition for the user to gain access within CICS.

InterSession creates entries for each user in CICS as needed if he/she does not already exist.

18. Is there a specific date by which the migration must be completed (mainframe lease renewal)?

Answer: No. The expectation is to complete the project within a roughly 2.5 year span, or less. The County has asked the vendors to provide an approximate timeline. See the RFP #1175, page 25, item 21b.

19. Please could you clarify of end state:
- Do you wish to convert JCL to scripts or run as a mainframe batch system? (The option of retaining the same mainframe approach on Windows is available)

Answer: We are open to both solutions.

- Do you wish to operate a CICS environment or convert to another online architecture? (Again, the options of retaining CICS on Windows is available, we would advocate for this approach)

Answer: We are open to both solutions.

- c. Would you prefer to convert existing VSAM to SQL Server? or would you look to retain the VSAM files on Windows where that option to be available?

Answer: We would prefer to convert VSAM to SQL Server.

- d. Will end users continue to use 3270 protocol to access the application?

Answer: Applications can continue to use 3270 protocol. We are open to alternative solutions such as a browser based solution.

- 20. Is the intention of this migration to result in the decommissioning of the mainframe, and if not, will the migrated application need to communicate back to the mainframe? If so, then please describe the the interfaces needed.

Answer: The long term goal of the County is to decommission the mainframe as described on page 14 of the RFP #1175. Once migrated, this application will not communicate back to any applications remaining on the mainframe. However, this application will need to interface with the applications listed in Appendix F of the RFP.

- 21. How many COBOL developers maintain the system(s) to be migrated and will they all require a distributed COBOL development environment on the target platform?

Answer: There are 4 developers who maintain the systems to be migrated. All developers will require a development environment.

- 22. Does the county currently use a distributed print/documentation solution other than MS SQL Reporting Services?

Answer: For the mainframe applications, all reports and runtime output is stored in the mainframe Deliver product from CA. Some report extraction is done there to isolate single reports. From there text reports are sent via LPR to an Infoprint Manager for Windows server for printing on paper or FTP to our Information Document Management system which is based on Opentext products Vista Plus and Enterprise Content Management (ECM). Some reports go to both print and ECM. Most output from online processes is sent to printers without saving in CA Deliver.

- 23. What distributed backup solution and tape management system is used?

Answer: The County currently uses Tivoli Storage Manager. The County has stated in requirement 7.12 of Appendix C, Technical Requirements Response Form, that the vendor describe their suggested solution.

- 24. Do you currently do any laser printing in the distributed environment and if so, what vendor is used (is this OpenText/VISTAPlus or InfoPrint Manager)?

Answer: All distributed printing is currently done through Infoprint Manager to laser printers. Customers may print from the Opentext products, but no automated printing is done from there at this time.

25. What do you use for billing for distributed processing use?

Answer: Non-mainframe billing is an enterprise charge to the departments.

26. What is meant by TB Blocks / COBOL Blocks?

Answer: TB is the name of the application to be used in the pilot test phase of the vendor selection process. What we call a block is similar to a copybook. We use them to define the physical layout of program data, constants definitions, communication with COBOL modules.

27. When will DB2, VSAM and sequential record layouts be made available?

Answer: These will be made available after the contract is awarded and the implementation project plan for modernization is in place. The project plan will show when this will be made available to the vendor.

28. What distributed scheduling system is currently being used, Tivoli Workload Scheduler?

Answer: We do not have a distributed scheduling system.

29. How clean is your data? and to what extent would data cleansing be required?

Answer: The County does not plan to perform any data cleansing prior to the migration. Any data cleansing during the migration may depend in part on the destination platform. See pages 22-23, items #5 - #9 and pages 24-25, item #17 of the RFP PS-#1175 for the County's requirements for an overview of the vendor's approach to data cleansing.

30. Are any third party code generators used?

Answer: No.

31. What portion of the CODE, DATA, SCHEDULER migration will you rely on the vendor to perform – 100%?

Answer: See requirement 1.1, Appendix C, Technical Requirements Response Form, stating the County's preferred approach. The County would like the vendor to perform 100% of the migration, if possible.

32. Number of BMS maps to be converted?

Answer:
Number: 583
Lines of Code: 134,381

In addition, there is a symbolic I/O map copybook for each BMS map. These are COBOL layout, generated by SDF [insert full product name] to Panvalet and included in COBOL CICS programs.

33. Does the COBOL line count include COBOL copybook?

Answer: Not included if the COBOL copybook is a separate file.

34. Can you provide a break out of COBOL copybook count & lines of code?

Answer: See COBOL Blocks in Programs table Appendix D – Inventory and Metrics

35. Does the Assembler line count include Assembler copybooks? Can you provide a Breakout of Assembler copybook count and lines of code?

updated on 5/9/12

Answer: The answer is no.

36. Number of DB2 stored procedures (COBOL)?

Answer: If you are asking about DB2 stored procedures written in COBOL, we will need to research this answer. If you are asking about DB2 stored procedures stored in DB2, we don't do that. Please clarify.

37. Number of REXX programs?

Answer: 13 REXX programs and 6 associated configuration files.

38. How many of the mainframe MIPS are used for testing & QA?

Answer: See Appendix E – Current Mainframe Configuration for the Property Tax System. Our mainframe has only development used for testing. (We do not have a QA environment.) We are not able to determine the exact MIPS used for testing in our development environment since some of the production batch processing runs in that environment Monday through Friday during business hours. We estimate the percentage of use to be 45-60%.

39. Is your mainframe owned or leased?

Answer: The mainframe is County owned.

40. Has any part of the application/infrastructure been outsourced?

Answer: No.

Added 5/8/12

41. What % of COBOL programs have embedded SQL Calls?

Answer: 23%

42. What % of COBOL programs have embedded calls to DB2 access modules?

Answer: 4%.

43. Does the JCL jobstream count include JCL procedures?

Answer: No

44. Can you provide a breakout of JCL Procedure count and lines of code?

Answer: NA, see answer to #3 above.

45. Are test cases and test data available?

Answer: See the transcript for the vendor pre-proposal conference call, question #25, during which this same question was asked.

46. Number of VB6 programs to be converted – line counts?

Answer: 89,180 lines of code

47. How many PCS schedules are defined?

Answer: 112

48. How many manual scheduled jobs are there?

Answer: 248

49. (Reference Number 3.12) It references the County GSA-IT application standards; is there a requirement as part of the conversion of these in-house developed system utilities to meet this standard? If so, will you make available a copy of these GSA-IT application standards?

Answer: The majority of in-house developed utility programs do not meet our current application standards since they were developed in the late 1970's to mid-1980's before our standards were implemented. We do not expect these programs to be updated to meet our current application standards.

50. (Reference Number 3.13 and 3.14) The in-house developed operation library and associated tools along with system utility scripts indicate that some are written in REXX. How many REXX scripts need to be converted and what is the desired target for these scripts?

Answer:

- a. There are 13 REXX programs and 6 associated configuration files.**
- b. The desired target language for these scripts will depend on the destination environment/platform. The vendor should be able to provide suggestions based on their proposed solution.**

51. (Reference Number 12.2) makes reference to Advanced Function Printing and the PAGEDEF and FORMDEF used. Would you supply a sample of the printed output currently in use by SLO?

Answer: We need to know more detail about what you need. Are you looking for printed forms with data on them, or will it suffice to see printed forms without data? Providing forms without data is a much simpler process and will give you an idea of what some of these forms look like.

Updated on 5/9/12

Vendor response: We would like to see the forms; without the data is acceptable. We need to see the forms so that we can understand the complexity of the PAGEDEF, FORMSDEF and the overall print form in use at San Luis Obispo County.

Answer from County: We will supply a sample of these forms in a zipped file to be posted separately on the County Purchasing web site.

Added on 5/9/12:

52. Can you provide a Breakout of Assembler copybook count and lines of code?

Answer: See the update to Q35.

53. What is the annual operating cost for the systems to be migrated?

Answer. A Total Cost of Ownership study was performed in 2007, and those figures showed the annual costs for hardware and software to be just under \$433,000

54. Is there a requirement for 24x7 availability?

Answer: The system is not highly available, and the existing hardware is a single point of failure. The expectation is the system is available for users 7:30 am to 6pm, and batch jobs will run after 6pm until 1am most working days.

55. What are the support requirements for the application to be migrated (12 hrs x 6 days, 24 hrs x 7 days, etc.)?

Answer: See the answer to the question above.

56. Will “hot” failover or disaster recovery servers be required?

Answer: See the posted answer to a similar question now on the County purchasing website, # 15.

57. Please confirm if the County of San Luis Obispo has a Microsoft Enterprise Agreement in place for the following products:

- Microsoft Windows Server 2008
- Microsoft SQL Server 2008 or 2012
- Microsoft SQL Server 2008 or 2012 *[Note from County: This was listed twice. Was there another tool you intended to inquire about?]*
- Microsoft Team Foundation Server
- Microsoft Visual Studio Prof Edition

Answer: All of our Microsoft developers have MSDN licenses meaning we can use any Microsoft development tool without paying for specific licenses. This means all of our Microsoft Developers are licensed to use Team Foundation Server and Microsoft Visual Studio all versions. This includes all of the people who would be on the Property Tax System Modernization project described in this RFP. In addition, we have specific licenses to cover our current production servers for the list of Microsoft tools listed in the question, which do not include any new servers needed for this modernization project.

Clarification Added 5/14/12:

The duplicated line item above should have been:

- Microsoft System Center Operations Manager 2007

Answer: We do not have Microsoft System Center Operations Manager 2007 or newer at the County of San Luis Obispo.

58. Timeline Question: The table states:
June 6 – June 29, 2012 Vendor Assessment Phase (finalists only, optional)
June 6 – Aug 3, 2012 Vendor Pilot Phase and Debrief meetings (finalists only)*
Does the pilot phase begin June 6 or July 6 or does it include the Vendor Assessment?

Answer: The dates listed in the table overlap for the pilot and assessment phases, as it is not clear to the County which activity the vendors would prefer to do first, or whether these can be done in parallel. The exact dates will be refined once the finalist vendors have been chosen. The pilot and assessment phases both start June 6.

59. How many programs are written using the COBOL 68 Dialect?

Answer: The number of COBOL68 programs is in the range from 50 to 100. If the proposer needs more exact numbers, more research is needed by the County which can't be complete prior to May 16. The proposer may want to bid based on an estimate of 50 COBOL68 programs, and then provide a figure of additional cost per additional program or group of programs..

60. Deleted, repeated as Q&A #63.

61. Deleted, repeated as Q&A #64

62. Page 9-10, Table 3 indicates:

a. Line 1 – TB Blocks (include code)

We are not familiar with the term TB Blocks, are these copybooks?

Answer: This question was answered in both the pre-proposal conference call and in the Q & A. The answer in the Q & A is more concise. This Q & A is #26 on page 5.

63. What is the size (bytes and number of records) of the largest VSAM file?

Answer: As of May 9, 2012, the largest VSAM file in the Property Tax System has a HI-RBA of 4,105,175,040 bytes which includes only occupied data and indexes. There are 4,836,762 records. Annually in June, the Property Roll Turnovers processing increases the file size by approximately 4%.

64. What is the size (bytes and number of records) of the largest DB2 table?

Answer: As of May 5, 2012, the largest DB2 table size is 444,301,312 bytes which includes only occupied data and indexes. There are 2,045,679 records/rows in the table.

65. On page 21, Background and Experience 2.e it says that non-California companies must provide evidence that they are registered with the California Secretary of State of transact business in California. As there is an \$800 annual fee for registering with California, does proof of registration need to be provided at submission of RFP or prior to issuance of the contract?

Updated question: We have been informed by the Secretary of State's Office that due to budget cutbacks, they are still processing February registration applications. If the answer to our previous question is that we do not need to provide proof of registration at the time of RFP submittal, do you foresee this time delay causing a problem with later stages of the RFP process? (such as the proof of concept stage)

Answer: The County is willing to accept filed paperwork for registration applications. Should the company choose to wait until contract negotiations,

the County is willing to accept a copy of the registration application at that time. On page 21 of the RFP, under "background/experience", it asks if the vendor is registered with the Secretary of State as a corporation or LLC, and/or has an agent for service of process in California. This is not viewed as being a requirement in order to propose.

66. I represent a company which has extensive and direct experience in migrating IBM mainframe applications to Microsoft .NET and MS SQL environments and we intend to submit a proposal for the above referenced RFP.

There are references to a "Turn-Key" solution in the RFP, including in the instructions for the Cost Proposal (RFP page 28, Item 32). However, the Scope of Services (RFP page 15, Item 3 (g)) only requires recommendations for hardware "that is fully supported by the vendor and/or partners".

Our modernization process produces hardware agnostic native source code and converted databases. We therefore rarely make hardware recommendations – especially on modernization projects for governmental bodies, as this hardware is often purchased against existing contracting vehicles according to pricing and other non-technical considerations.

We do have industry partners which can provide this information, but we have not had time to engage them in light of the impending May 16th deadline. Assuming we do not provide direct recommendations/specifications for hardware and cannot engage an industry partner in time to acquire this information, would you discourage our bid in response to this RFP?

In order to perhaps clarify my question above, will proposals for a source code modernization and database conversion, other than a complete turn-key solution, which includes all hardware - be evaluated on their merits?

We assume that the County has access to statewide contracting vehicles via which they can purchase the desired technology stack at reduced cost. Our proposal will demonstrate that we have the capability to provide vendor-agnostic source code and database modernization services which result in native source code and databases.

Answer: The County states in the RFP in Appendix C, requirements 2.6 through 2.10, that we require the specifications for software and hardware for both the target development and production platforms. Furthermore on page 28, item #32A, Cost Proposals, the 'County reserves the right to purchase hardware and software independent of the vendor'. The County is willing and able to purchase hardware and associated software such as operating systems according to the specifications provided in the response to requirements in Appendix C, #2.6 - 2.10. Next on page 30, Item #33C, the County states the following: "It is in the County's best interest to obtain responses to this proposal from many different vendors. The County would like to know which of these numerous requirements can be met; however, vendors should not be

dissuaded from submitting a proposal even if the response to some of the requirements is 'not available.' "

Added 5/10/12:

67. How many MIPS is the County Mainframe running, peak and average? What percentage of the mainframe is the Property Tax System?

Answer: Please refer to the posted Q&A #4 for this answer.

68. How many developers will require SDKs?

Answer: See the posted answer in the Q&A to question #21.

69. Will this project eliminate the mainframe?

Answer: Not immediately. See the RFP page 14, and this Q&A question #20 for more information.

70. Is there an incumbent outsourcing or service provider?

Answer: Outsourcing is answered in the posted Q&A #40. There is no existing service provider for the application, and the infrastructure is supported with a maintenance agreement currently held with IBM.

71. What is the number of print devices?

Answer: Twenty-seven (27) printers are used by the Auditor/Controller (9), Assessor (9), Planning (1), and Tax Collector (8) from CICS. There may be one or two other printers in other departments which is now being confirmed. (This response will be updated should that be the case). All are network attached. We have 2 high speed laser printers in the County IT data center, both Infoprint 2900ES licensed for IBM Intelligent Printer Data Stream (IPDS). Print jobs for the aforementioned printers are sent to Infoprint Manager for Windows and the printers are managed from there. (We have 2 IBM channel attached impact printers in the data center; but they will be removed by 2012 year end.)

72. Are there channel attached and/or high speed devices currently?

Answer: There are 2 high speed Infoprint 2900ES laser printers that are Ethernet network attached. Print jobs are sent to Infoprint Manager for Windows and the printers are managed from there. Most batch reports still being printed are printed there. (There are 2 channel attached IBM impact printers that will be retired by 2012 year end.)

73. Are the applications on the mainframe emitting any datastreams such as AFP, LCDS?

Answer: All reports from the mainframe are EBCDIC text. We use custom pagedefs and formdefs to format some reports for printing.

74. Q: Has the County ever attempted to modernize the Property Tax System in the past? If so, what vendor was used and what were the results?

Answer: No

75. Q: Has the County asked any vendor in the past to perform a pilot project? if so, please provide details.

Answer: Yes, the County has asked a vendor just recently to perform a pilot project. One example is a current vendor selection still in process, through RFP PS-#1159 for a new DA Case Management System. The pilot is being used to select the final vendor from the short listed vendors. The link to the County Purchasing Archives for past RFP's for 2012 can be found here:
http://www.slocounty.ca.gov/GSA/Purchasing/Bid_and_Proposal_Archives_Menu/2012_Bid_and_Proposal_Archives.htm

76. Q: Does the Local Vendor questions need to be included in the response as a form as shown on Page 3 of the RFP?

Answer: Yes, the local vendor preference questionnaire on page 3 of the RFP should be completed and included in the vendor proposal. The vendor should include it just after the table of contents for the proposal.

77. Below is a two part question:
San Luis Obispo has signified in the RFP that their preferred target for the migration is a solution using web based screens (such as ASP.NET) that also converts VSAM, sequential and flat file data into appropriately normalized SQL data.

While we are planning on proposing a solution along these lines, we are also aware that there can be a strategic benefit to getting an application off of the mainframe sooner rather than later. One of the approaches in a case like this is to make the first phase of the project a quick lift and shift that keeps JCL, CICS BMS maps utilizing 3270 desktop clients, and VSAM files, follows by a second phase that moves the CICS screens into ASP.NET and the data files into SQL. As mentioned previously, the benefit in this case is that the application can be moved more rapidly, which in many cases results in earlier savings by reducing or even removing mainframe costs. The downside to this approach is that there is some amount of additional testing that is required such as when the online portion of the application must be requalified as part of its migration from BMS/3270 CICS into an ASP.NET web app.

Having established this line of thinking, my questions are as follows: a) Does San Luis Obispo perceive any significant strategic advantage (either financial or from a development point of view) that would justify such an approach? (Our

impression from the answer to the question regarding SQL Via is that the mainframe will not be completely shut down when this project is completed, but we did not want to read too much into that.)

Answer a): The mainframe will be shut down sometime soon after but not during the project. The County did a study back in 2009 and deduced several advantages of going directly to ASP.NET. A few of those are listed here:

- **Rehost to Microsoft (MS) .Net/Windows**
 - **Cosmetic changes to look, feel**
 - Screens 'web-like', or can remain 'greenscreen'
 - Navigation is 'web-like'
 - Same functionality
 - Data/reporting becomes more 'Microsoft SQL' oriented
 - Microsoft SQL Reporting Services (SRS) and Integration Services (SSIS) toolset used
 - Maintenance is through Latest Microsoft Visual Studio Integrated Development Environment (IDE)
 - Improved developer efficiency and re-uses in house expertise on the Microsoft .Net IDE
 - **Move into MS Windows/Web environment**
 - More knowledge/skill available
 - Increased toolset
 - More easily maintained & enhanced

b) If so, is it acceptable for us to propose two different solutions (one proposing a multi-phased solution, and one that move directly to the end state), and if so, is there any additional guidance from San Luis in how we should represent those options within the framework of the RFP?

Answer b): Yes you may propose an alternative solution. Please include it as #35, Alternative Solution. Provide details of any changes from the primary proposed solution, including any deltas in terms of the responses provided to items #6-32 and the Requirements Matrix, Appendix C. Should there be any advantages to this alternative approach, please list them in the Summary for the Alternative Solution.

78. [The RFP states this on page 28, Item #31] Summary: Describe any final issues not covered in the items above that the vendor feels are relevant in the evaluation. What features differentiate the vendor's solution from other solutions? To reiterate, the vendor should have displayed proven, solid, experience in VSE and Microsoft platforms, displayed proven, solid, experience in DB2, VSAM, and SQL Server environment and presented appropriate experience and talent on the vendor's staff. Are we talking about experience in the above mentioned environments or specific experience in migration projects involving these environments?

Answer: It is more important that the vendor have migration experience with

our environments than experience using, administering, and/or programming in an environment like ours.

79. Q: Can you please explain Legacy Data Manager?

Answer: We use Legacy Data Server (LDS) to access mainframe VSAM data from workstation and server applications. It is also used to transfer data from workstation and server applications to the mainframe into VSAM and from the mainframe VSAM to departmental Windows server file shares and SQL Server. All interfaces using LDS are listed in the RFP in Appendix F - Property Tax System Interfaces. The keyword in the Method column is 'Mainframe LDS/Gateway'.

Legacy Data Manager is a Windows desktop application used by County GSA-IT Software Engineers to map VSAM data into a relational format allowing access from applications outside the mainframe to data using standard SQL commands such as SELECT, INSERT, UPDATE and DELETE.

80. Q: How is ViaSQL used?

Answer: We use ViaSQL to access mainframe DB2 and VSAM data from workstation and server applications. It is also used to transfer data from workstation and server applications to the mainframe and from the mainframe to departmental Windows server file shares and SQL Server. All interfaces using ViaSQL are listed in the RFP in Appendix F - Property Tax System Interfaces. The keyword in the Method column is 'Mainframe ViaSQL Gateway' or 'Mainframe Gateway'.

81. Below is a two part question:

[The RFP states on page 21, item #4] Experience with Similar Systems: Include information on 3 (three) or more successful projects of similar size, functionality and complexity completed in the last 5 (five) years. Note any Federal, State or County clients in this description. Include any experience related to Property Taxation, and describe work with any departments similar to those involved in this project, whether Assessor, Treasurer-Tax Collector, and/or Auditor. Include a brief description of each project and its timeline, dates of work performed, total team size, and client contact references, including company, name of contact person, title, phone number, and email address for each reference identified.

a) We would like to get a clarification regarding nature of reference projects required by the county. Are we talking about projects with similar source (i.e. IBM VSE, COBOL, CICS, DB2) and target (Windows, SQL Server) environments or project with similar size only (i.e. number of programs, files, tables regardless the environment, database type, etc)?

Answer a): Ideally we would like references and experience related to projects of both similar source and target environments, as well as size. If that is not

available, references and experience can be shared about projects of similar source and target environments, or at least source environments.

b) Is having 3 or more projects in the last 5 years is prerequisite?

Answer b): The goal was to list recent projects similar to this project. There is not a prerequisite to having 3 or more projects in the last 5 years.

Added 5/11/12:

82. Can you describe what makes up COBOL CICS RSP and COBOL CICS CSA?

Answer: COBOL CICS RSP and COBOL CICS CSA are COBOL CICS programs which use ViaSQL connectivity and commands to support their acting as a client to a LAN-based Service.

We have GSA-IT developed workstation applications that connect to the mainframe and call one or more COBOL CICS RSPs. The RSPs perform a variety of functions such as transfer mainframe VSAM and DB2 data to the workstation application, transfer data from the workstation application to mainframe VSAM and DB2, and request calculated data from called mainframe COBOL CICS modules. We have included 2 (two) RSP programs to illustrate the coding used for different functionality.

Our COBOL CICS CSAs are started in CICS by a batch job. The CSAs transfer data from SQL Server to mainframe VSAM and DB2, transfer mainframe VSAM data to SQL Server tables, call a SQL Server stored procedure, and start a mainframe batch job. We have included samples of three (3) CSA programs to illustrate the coding used for different functionality. Please see the attached zipfiles listed separately on the County website for this RFP.

83. What is the number of reports defined to the system (GB) stored today?

Answer: The County estimates there are 1,025 reports in the Property Tax System. We will not have an exact count of reports produced by the System utility programs prior to the proposal due date. We estimate this number to be accurate within +/-25%.

84. How many users (Office workers or users) would need access to online reports generated from applications being migrated (financials, clinical, Kronos, Various Report writers, core applications, etc.)

Answer: Approximately 130 users.

85. [Referring to Appendix D, Inventory and Metrics] We are not familiar with the term COBOL Block, are these also copybooks?

Answer: Yes, COBOL blocks are same as copybooks. See Q & A page 5 question #26 and pre-proposal Q & A question #13.

86. [Referring to Appendix D Inventory and Metrics] We would like more information on the functionality of Assembler programs, can you quantify and categorize the Assembler programs by their function?

Answer The quantity of assembler programs is 70 as stated on page 52, Appendix D, Inventory and Metrics in the table entitled Programs. The County cannot provide the details of quantity and category of Assembler programs by their function prior to the proposal due date of May 16, 2012.

Clarification Question (*posted 5/11/12*): For example we typically see Assembler being used for utility purposes – data calculation routines, formatting data, I/O routines, etc. Sometimes the Assembler programs are application programs. This question is important as an understanding of the nature of the Assembler programs can affect the estimates greatly. If the programs have to be rewritten, it will take more hours than if they can be replaced with a .Net function.

Updated Answer (*posted 5/11/12*): Most of the 70 Assembler programs are used for system utilities as opposed to application programs. If a vendor is concerned about properly estimating costs, please indicate the assumptions being made in the Cost Proposal submitted as part of the response to the RFP. More detail may be provided by the County during the assessment phase of the vendor selection process for short-listed vendors.

87. San Luis Obispo stated that they already have servers and the target environment in place, can you please detail what security, change management, print management and scheduling tools are in use. Are these the same that will be used for the Property Tax Modernization target platform.

Answer: The County has identified in general virtual target servers on which this solution is proposed to reside. The County asks the vendor in Appendix C, requirements 2.6 through 2.10, to identify size and desired software for the target operating environment including hardware. The County does not currently have enterprise change management, print management and scheduling tools in the target environment. We have requested solutions for security, change management, print management and scheduling.

- **Security - The County asks the vendor in Appendix C, requirements 8.1 through 8.7 and 11.6 to identify solutions for security. See Q & A question #17 answer which describes Intersession and CICS security. The in-house development security used by the CICS COBOL programs will be migrated to the target environment during the modernization project.**
- **Change Management - The County asks the vendor in Appendix C, requirement 2.5 to require Team Foundation Server to be used for change management.**

- **Print Management** - See the RFP page 17, Item 6b related for print services. The County asks the vendor in Appendix C, requirements 12.1 through 12.11 and 11.6 to identify solutions for print management.
- **Scheduling Tools** - The County asks the vendor in Appendix C, requirements 7.2 through 7.4 to identify solutions for job scheduling. See Q & A question #28 answer regarding a distributed scheduling system.

88. What other tools are available in the target environment for performance and tuning, monitoring, testing and test management and debugging an animation?

Answer:

- **Performance Tuning** -- We do not have any specific tools, we use the built in performance monitor and VMware's performance metrics at the guest OS and host level and depend on the developers to tune the application for the target platform.
- **Monitoring** -- We do all of our monitoring via Nagios using SNMP
- **Testing and Test Management** --
Our current version of Visual Studio 2010 Ultimate includes the following:
 - **Debugging and Diagnostic Tools**
 - **Testing Tools**
 - **Code Analysis & Performance tools**
 - **Stress/Load tests (for web applications))**
- **In terms of SQL Server, we have used both of the following:**
 - **Database Engine Tuning Advisor**
 - **SQL Server Profiler**

We also have trace tools available for debugging web services.

89. If a vendor is selected for a pilot, does the County plan on providing compensation for the pilot project? If so, please provide details.

Answer: The County does not intend to reimburse short-listed vendors for the pilot work performed during the course of vendor selection. The goal of the pilot is to educate the County and vendor about the challenges presented by this project, and allow the vendor to produce a more accurate cost proposal. Any vendor may choose to add costs for this exercise as they see fit. However the County's decision will be based on the criteria in Table 2 on page 8 of the RFP which includes but is not limited to the proposed solution and overall proposal, experience, references, pilot and optional assessment results, and a single overall cost proposal to the County. The County would like to know if a vendor decides not to propose due to this requirement of a vendor pilot. The vendor assessment is optional.

90. Is the expectation the short-listed vendor will provide this work as a cost of sales or is the County willing to reimburse for fees and expenses.

Answer: See the Q&A immediately preceding this question.

91. [Referring to page 15, paragraph k, Data Views and Interfaces] Can the County clarify [whether] if the chosen vendor provides the solution as the County specifies – SQL Server, providing the same data in the same format as currently exists, does the County have the tools required to access the information from SQL Server?

Answer: In some cases, data will be in the same format in SQL Server as it currently exists, and in other cases not. We expect character and external decimal data to be the same format in SQL Server as in the mainframe. We are aware there are data types supported by mainframe VSAM such as COMP, COMP-3, and BINARY, which are not supported in SQL Server and will require conversion to a supported data type. In addition, there may be DB2 data that will require conversion to a SQL Server supported data type. In the latter two cases, the applications must still be able to access the data. As stated in the RFP on page 16, section 5. Project Objectives, paragraph f. the vendor should propose the new data format for SQL Server, and explain how the application will access the data. To properly respond, see Section V, Project Scope - Requirements on pages 22-24, #6-9 for data and #10 -13 for programs.

92. Is adapting the end-user access in scope?

Answer. The end-users do not have direct access to data on the mainframe. They have access to data via COBOL CICS programs, workstation applications using ViaSQL, and mainframe executed FTP of data to and from department file shares. We do not expect the end-user access to SQL Server data to change, and will remain via existing programs and other methods. Yes, all existing data access methods are in scope.

93. If in scope, please clarify and quantify the methods used to access the data.

Answer: The methods used to access the data programmatically are DB2 embedded commands, called COBOL DB2 access modules, called Assembler language I/O modules for batch VSAM, sequential and work file data access and COBOL CICS RSPs (ViaSQL) called by workstation applications. See the RFP, Appendix D, page 52, Inventory and Metrics, for the quantity of COBOL programs.

94. The RFP says there may be both conversational and pseudo-conversational CICS. Please quantify how many of the CICS programs might be conversational in design.

Answer: We estimate that approximately 50 of the CICS programs are conversational in design.

95. Page 9-10, Table 3 indicates:

- a. Line 3—38 COBOL, batch & CICS
- b. Line 5—6 I/O Modules (Assembler)
- c. Line 11—XX Components (system utility record layouts & COBOL, DYL260 and Assembler programs)

Our question: Does Line 11 double count the COBOL (line 3) programs, and can you provide counts of each of the language types in the XX area; COBOL, Assembler and DYL260?

Answer: No, Line 11 does not double count the COBOL Line 3 programs. Refer to the revised Table 3, attached below, which was created to answer this question.

The original Table 3 is on pages 9-10 of the RFP.

Table 3 - Pilot Components Test Summary, Clarified

Description*	Count
TB, TC Blocks (include code)	16
PD, TB, TC Record Layouts	64
PD, TB, TC TR, TX Programs (COBOL)	34
PD, TR Programs (DYL260)	3
TC Windows VB.Net Application (TC14)	1
PD, TB, TC, ZY I/O Modules (Assembler)	6
TB, TC CICS Screens (18 includes, 18 BMS)	36
PD, TB Sequential Control records (Handy Data sets from CA Panvalet)	4
PD, TB, TR, Jobs Controlled by JCL	12
TB, TC DB2 Tables	9
PD, TB, TC, TR, ZY VSAM Files	15
XX Blocks (include code)	29
XX Programs (COBOL)	5
XX Programs (DYL260)	4
XX Programs (Assembler)	3
ZY Blocks (include code)	23
ZY Record Layouts	2
ZY Programs (COBOL)	29
ZY Programs (Assembler)	1
Total	296

*Subsystems PD, TB, TC, TR, TX are part of the Property and Tax System.
Subsystems XX and ZY are system utility components.

Added 5/14/12

96. [Regarding] Attachment C – 3.13 Operations Documentation. Can you describe the Operations Documentation, how it is stored, any COTS software involved, in-house written software? How is the documentation accessed?

Answer: The Operations Documentation is stored in a direct access (DA) file with the DLBL stored in the standard labels file. Each document is referenced

by an 8-character code. Each document's title is stored in the Code & Title VSAM KSDS file with the DLBL stored in the standard labels file. The Operations Documentation is written in an in-house developed text formatting language that uses defined characters and descriptors to control text formatting.

GSA-IT Operations Dispatch uses the printed Operations Documentation for batch job setup information and scheduling. The Operation Documentation and Code & Title data is used to generate batch job process sheets, requested by Dispatch, that contain job information for the GSA-IT Computer Operator managing batch job processing.

The Operations Documentation data is maintained and accessed via in-house developed utilities. Code & Title is maintained by an in-house developed COBOL CICS program. In addition, Code & Title data can be maintained using in-house developed batch utility. However, that method is seldom used.

97. [Regarding] Attachment C – 7.10 Data Entry of Control Parameters Does SLO have a current data entry application, or is the County looking for a custom solution? If there is a current solution in place, please describe.

Answer: The County Information Technology Dispatch uses an in-house developed utility for data entry of job control parameters. The County does not have a current solution in place outside the mainframe. We are looking for a solution as stated in requirement 7.10 of Appendix C in the RFP.

Added 5/15/12:

98. Does the TB subsystem targeted for the pilot contain any code using the COBOL 68 dialect?

Answer: The answer is no COBOL 68 dialect is in the TB subsystem or its utilities.